



Clean Michigan Initiative Clean Water Fund



St. Clair County Drain

Commissioner's Office

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Illicit Connection Elimination Project

January 2002 through December 2004



Over a period of 3 years the St. Clair County Drain Commissioner's Office has identified 89 illicit connections within the Anchor Bay and Pine River Watersheds. This was accomplished by systematically surveying county drains for signs of contamination (e.g.: elevated *E. coli* density, elevated detergent concentrations, sanitary waste, algae build-up, etc.). Failing septic systems accounted for 86 of the illicit connections. As of the date of this fact sheet, property owners have corrected 48 of these septic systems through major and minor repairs and in some cases, field replacement. This effort has removed 2.2 million gallons of wastewater from surface waters annually. This in turn has eliminated hundreds of pounds of nitrogen, phosphorus, oils, and solids from reaching area surface waters. An additional 4.1 million gallons of untreated wastewater will be eliminated from waterways annually once the remaining systems are corrected.



Grant Amount: \$ 297,600

Match Funds: \$ 99,500

Total Amount: \$ 397,100

Illicit Discharge Elimination Program St. Clair County



St. Clair County Health Department
Environmental Health Division
and the
Office of St. Clair County Drain
Commissioner

Partners Involved:

- St. Clair County Health Department
- St. Clair County Road Commission

Contractor:

Environmental Consulting & Technology, Inc.

Best Management Practices:

- Repair failing septic systems
- Replace failed septic systems



Annual Load Reductions:

- 2.2 million gallons untreated wastewater
- 565 pounds of Nitrogen
- 131 pounds of Phosphorus
- 282 pounds of fats, oils, and grease
- 1,407 pounds of total suspended solids
- 6.3 million gallons untreated wastewater once all systems are corrected

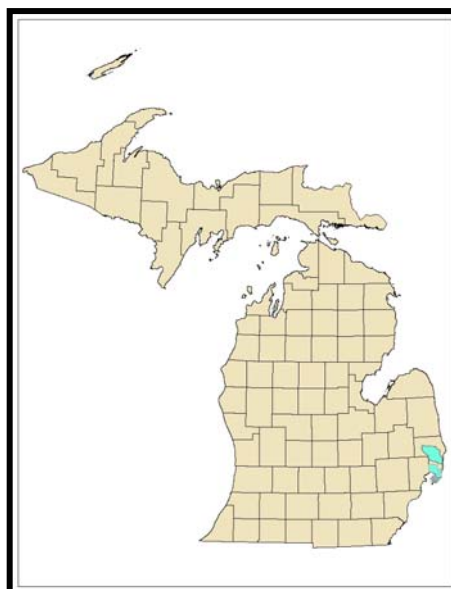
Information & Education Activities (not funded under this project):

- Presentations to:
Various St. Clair County Departments,
Several Watershed Advisory Groups,
Several communities involved in the
Phase II Storm Water Regulations



Future Activities:

- Continue to work with the Health Department to build awareness and correct previously identified failing septic systems and other illicit discharges.
- Continue illicit connection identification throughout the remaining county drains through additional funding from the Michigan Department of Environmental Quality Clean Michigan Initiative grant program.





Algal growth: Heavy nutrient loading was an indication of illicit connection(s) and/or nonpoint source pollution.



Agricultural runoff: Outfall survey during the winter months provided evidence not easily noticeable during the summer sampling season.



Outfall survey: Outfall survey by boat provided easier and more efficient access to the larger drains.



Outfall survey: Many of the outfall surveys of the county storm drains were conducted on foot.



Cheater pipe from a residential septic system: Global Positioning System (GPS) allowed field crews to return to potential illicit connections.



Dye testing: Some follow-up activities involved dye testing to confirm ownership of an identified illicit connection.